EDITORIAL ARTICLES.

TUBERCULOSIS OF GLANDS, AND THE IMPORTANCE OF EARLY OPERATIONS.

(*Ueber Drüsentuberculose und die Wichtigkeit frühzeitiger Operationen. Dr. Carl Garrè*, Deutsche Zeitschft. für Chirurgie. Bd. XIX., Hft. 6, s. 529.)

The surgical text-books state that, aside from malignant affections, lymph glands present two kinds of enlargement:

Inflammatory swelling,

Idiopathic hyperplasia.

Diagnosis of the first is easy. As for the second, we may include among its causes tuberculosis, syphilis, and leucocythæmia. For differential diagnosis we must often depend on the presence or absence of causes in the immediate neighborhood.

The more intimate knowledge of disease we possess, the less we use such terms as idiopathic, spontaneous, rheumatic, etc. In other words, the more we study the so-called idiopathic hyperplasia of lymph glands, the less idiopathic we shall consider it. In these idiopathic enlargements, moreover, there are no sharp boundaries nor any specific differences; but when we study the whole subject, we find that they occur by far most often in scrofulous individuals. In order to make it absolutely clear that the lesion so often known as scrofulous gland enlargement frequently gives us the first inkling of a latent tuberculosis, we must fall back on Koch's discovery of the specific microbe as a means of avoiding error and being sure of our ground.

This special paper under consideration at present is particularly concerned with the results of forty cases operated upon by Prof. Kocher since 1872, which have been definitely traced, after an interval of several years. The importance of the earliest possible excision of these enlarged glands is not yet fully appreciated by the profession gen-

erally. In order to give this paper more weight in this very direction, only those cases have been considered in which the histologically tubercular nature of the lesions had been carefully ascertained by the microscope.

Of the forty, all but six were lymphomata colli; in the others, the enlargements were in the axillæ, three of these having also cervical glands involved. The cervical glands which lie along, above, and below the sterno-mastoid muscle, below the jaw, above the clavicle, and behind the mastoid process, form part of a lymph-vascular region which has its fine beginnings in the skull, the face, and the neck. So far as we at present know, it is especially from the mucous membranes and the skin that the pathogenic influences come which cause these enlargements; particularly when the epithelial covering is broken. At least this holds good for acute adenitis, and there is no reason why it should not for those chronic enlargements which are the subject of this paper. That in the tubercle bacilli we find our *materia peccans* is an unavoidable conclusion from the painstaking researches of Schuchert and Krause,[1] who have always found them in these cases. Very often we see a tuberculous process take place after a tissue injury or an external wound, after which the glands become infected. Formerly it was held that this evidenced a "scrofulous disposition" on the part of the patient; that the tissues did not react well after injury, and that the soil was abnormal, not the irritation.

Hueter sought to make clear the encroachments of "scrofula" by an anatomical explanation. He believed in a greater width of lymph passages, by which means invasion of tissues was made easier. On the other hand, very recently, Formad has been claiming an abnormal narrowness of the same channels in "scrofulous" patients, and regards this as essential to the proper deposition and growth of bacilli. All of which shows that the bacilli, and not the passages themselves are to blame.

It is every day becoming more certain that tuberculosis is an infectious disease, whose hereditary features are not to be disclaimed or overlooked, and in many respects not so very dissimilar from syphilis.

[1] *Fortschritte der Medicin.* Mai, 1883.

After many others had failed, Strauss and Chamberland succeeded, in 1883, in proving experimentally that the micro-organisms of splenic fever and of Pasteur's septicæmica could pass the placenta and enter into the fœtal circulation. Why may not this also be true of the tubercle bacilli, and they be enabled thus to effect hereditary transmission of the disease? Thus, too, it may happen that through the inflammatory influences to which we are all daily exposed, in an individual with what may be termed latent tuberculosis, a local lesion may be originated. By the inflammatory process the resistance of the tissues is manifestly weakened, and the bacilli find their most favorable environment in the midst of the young cells in the inflamed tissues. Healthy persons and those of proper hygienic habits have—thanks to the resistance of their tissues—the power of eliminating or antidoting the infection.

With regard to the special etiology of the cases under consideration, particular attention was paid to the examination of the mucous membrane of the mouth, pharynx, nose, ears and larynx, upon whose relatively extensive surface lesions and small tuberculous ulcers serve as the points of infection of the glands. However, when these are of long standing, they are not always easily made out; they may be inaccessible and invisible, or may have healed.

In twenty cases it was possible to learn accurately the time at which, and the source from which infection took place:

In 5 the source was rhinitis.
In 5 " " " periodontitis.
In 2 " " " otitis.
In 2 " " " conjunctivitis and blepharitis.
In 5 " " " eczema of face or ear.
In 1 " " " dacryocystitis.

Of twelve other cases the original cause was:

In 2 periodontitis.
In 4 angina tonsillaris.
In 2 eczema of face and ear.
In 1 keratitis.
In 1 otitis and rhinitis.
In 1 suppuration after vaccination.
In 1 metatarsal ostitis.

The bronchial mucous membrane being, on account of its great extent, the most common point of infection, the bronchial glands are

those most commonly involved; but next often come those of the neck, which are more frequently enlarged than all those of the axilla, groin, and elsewhere, put together. In this place, let it be noted that we not infrequently meet with a progressive infection of a lymph-vascular region in a direction contrary to that of the lymph stream. As an example, take one of the above cases where, after mastoid inflammation, the axillary glands first enlarged, then the supra-clavicular, and finally those in the immediate vicinity of the process.

The forty cases alluded to, studied in relation to age, heredity, sex, etc., give results in no wise differing from the general average.

Treatment.—The fact that caseation of the glands often leads to dissemination of products, *i. e.*, general tuberculosis, should lead to a most early and energetic local treatment. It will not do to be satisfied with opening suppurating glands, nor even with provoking them to suppurate by Korbl's method of parenchymatous iodine injections and massage. It was no small service which Hueter rendered when he recommended the early total extirpation of these tumors as essential in warding off general infection. Koch's discovery and the consequently clearer insight into the etiology of tuberculosis in no wise diminishes the importance of this procedure; but, on the contrary, redoubles it and places it upon even more rational ground.

As a result of the presence of bacilli in the adenoid tissue, it often happens that these glands caseify. This caseous mass is often the site of acute or subacute suppurative processes, whose cause is the irritation caused by the presence of the more or less necrotic elements that have been killed during the tubercular local infection. When this suppuration is once started, it is not difficult for the infectious material to escape from its glandular bounds and be taken up by some neighboring lymph vessel. This may lead to infection of some neighboring glands or distant organs; or, as Weigert has shown, by perforation of such an abscess or its infectious products into a vein, and by a subsequent embolic process, an acute miliary tuberculosis may rapidly terminate the patient's life.

Therefore, we should do more than simply recommend early incision of such abscesses—we should reconcile our patients to the earliest possible extirpation of such glandular tumors; for only by this radical

measure can we save our patients from impending danger. And in order that they may not be deprived of a single possible benefit, general hygienic and dietetic treatment, as well as local, should not be overlooked.

Such operations may be of the simplest possible nature, or, on account of multiplicity of tumors, deep adhesions and peculiarity of position, they may require even two or three hours in the hands of a practiced operator. One long incision may be made along the sterno-mastoid, or, as Kocher prefers, several smaller ones, as called for.

Final Results.—Of the forty cases on which Garrè bases his paper, twenty-one have shown no tendency to return, nor new glandular enlargements anywhere. Ten cases showed a tendency to recedive, the new glandular tumors varying in size from that of a nut to that of an egg. In two cases details are wanting; in four subsequent trouble with the teeth was reported, and in one an eczema of the face, which probably lead in their cases to an apparent recedive; though in each of these there was reason to believe that the lungs were at fault. Two others died of phthisis a few months after operation. Phthisis was hereditary in the families of each, and both probably had incipient trouble at time of operation. ROSWELL PARK.